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Evaluation of a Pilot Peer Observation of Teaching Scheme for Chair-side Tutors at Glasgow University Dental School

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Abstract

Aim To introduce and examine a pilot peer observation of teaching (POT) scheme within the Department of Paediatric Dentistry at Glasgow Dental School and its associated outreach centres. **Methods** All tutors teaching paediatric dentistry were invited to be involved in evaluation of the POT scheme. Participants were randomly paired with a peer, who then observed their teaching and provided constructive feedback. For those consenting to be involved in the evaluation of the scheme, semi-structured, one-to-one interviews were carried out by the principal investigator. **Results** POT was found by all participants to be a beneficial process, reassuring those of their teaching styles and giving them ideas to adapt their teaching. **Conclusion** POT is an effective method for engaging chair-side tutors in the reflection and development of their teaching practice via observations and scholarly discussion.

Introduction

Peer Observation of Teaching is a reciprocal process whereby one peer observes another's teaching and provides supportive and constructive feedback. Its underlying rationale is to encourage professional development in teaching and learning through critical reflection, by both the observer and the observed.[1] The POT process focuses on assisting staff to improve their teaching skills. It can be explicitly staff-led with no predetermined agenda and can be used with inexperienced teaching staff helping them to achieve standards of competency. [2] The intention is that teachers will learn something of importance about teaching and learning during the POT process and associated discussions. Following the POT process teachers should take steps to incorporate any good practice observed into their teaching and eliminate any poor practice identified, this will develop both their teaching and their concept of themselves as a teacher. [3,4] Ideally, POT should be a non-judgmental process and any power imbalance between participants should not be viewed as a barrier to providing constructive feedback on teaching practice where the mutual aim is to enhance learning and teaching. This does however raise questions about who may or may not be considered as a peer.[5] The main aims of any POT scheme are to enhance and disseminate good teaching practice and support the development of teaching skills, to enable personal development through a process of reflective practice which will in turn improve the quality of teaching experienced by the students.[6] Working

through this process holds benefits for both the observer and the observed and the focus is always on constructive development, rather than negative criticism. [7] Reflective practice has been advocated as a means of professional development both for new and experienced academic staff. [8,9] Some evidence, however, would suggest that a reflective approach does not suit all teachers. Some may see their teaching as largely "common sense" and drawn from experience, [10] however, as Kugel[11] observed, teachers progress through a series of distinct developmental stages where they increasingly focus upon the importance of the student experience. We were keen to see how POT could contribute to supporting our participants in their development as teachers.

Institutionally, POT is consistent with the University of Glasgow's aim to promote excellence in teaching and previous schemes have been shown to help enhance the profile and value of teaching and scholarship within institutions. [2] POT has also been shown to be worthwhile for development of teaching in a variety of disciplines.[12,13,14,15] In addition to the potential benefits to the individual already described, POT can be viewed as a collaborative project to establish a culture that nurtures the improvement of teaching within a department or wider institution. Collaborative peer observation of teaching is about finding ways of creating and sustaining conversations about teaching which are constructive and purposeful and which open problems in teaching to debate and discussion. [2] Some studies

have shown that scholarly discussion between teachers are more significant when they take place between small networks of teachers in a supportive environment rather than within larger networks, [16,17] and the POT process facilitates this. The POT process should remain confidential and should not be used by line managers as a process to address underperformance or for promotion. [2,7]

Despite the numerous POT schemes reported within higher education, there are no reports of its use in the teaching of chair-side clinical dentistry; this area remains distinct from medicine and nursing, with dental students carrying out multiple invasive procedures at any given clinical session. Tutors in dental outreach clinics, who are often NHS employees, may have limited access to support for teaching as clinical responsibilities and their location, which is remote from the Dental School or University Campus, hamper their availability to attend development events. Potentially, POT can compensate for these limitations by providing feedback, support, scholarly discussion and encouraging reflection. The process overall has the potential to maximise quality assurance and enhancement of clinical teaching as well as contributing to standardization of teaching across an institution [18].

Aims

The aims of this study were:

1. To introduce a POT scheme amongst the current clinical chairside teaching staff within the Department of Paediatric Dentistry at Glasgow Dental School and its associated outreach centres.
2. To determine if the POT scheme was an effective and acceptable vehicle to encourage scholarly discussion, reflection and development of teaching practice.
3. To examine the outcomes from this pilot study and consider if a POT scheme would be a useful tool for teachers in other areas of chair side teaching within Glasgow Dental School.

Methods

The methodology underpinning this project is that of evaluation research. Evaluation research has successfully been used in the past to study programmes and initiatives [19] and is commonly used in studies with qualitative data. Evaluation research is often carried out to determine how well a programme or initiative works in real-world settings and to show how it might be improved. Evaluation specifically involves determining the

worth, merit, or quality of an evaluation object or subject, such as a POT scheme. [20,21, 22]

Ethical approval for this evaluation research was sought and granted by the University of Glasgow's College of Social Sciences Ethics Committee. All tutors teaching paediatric dentistry (14) were invited to be involved in evaluation of the POT scheme and attended a training session where the potential benefits of POT were explored. This two-hour training session took place as part of a wider study day and consisted of a PowerPoint presentation, workshop and discussion. The training session was led by one of the authors who is a Senior Academic with the Learning and Teaching Centre at the University and author of the University's guidance on POT. Written information about the scheme and its evaluation was disseminated to potential participants, who were invited to provide written consent. Participants were randomly paired with a peer by placing names in a hat, and then given the opportunity, confidentially, to raise objections to their chosen pairing should this have been an issue. In conjunction with the University of Glasgow's written guidance on POT [23] the first meeting (pre-observation) of the pairing functioned to discuss how the observations would run and negotiate agreed criteria, these meetings took place face-to-face, over the telephone or via email. Guidance was supplied to those participants who preferred to be given some structure for their observations (fig.1). Participants were assured that this guidance was non-prescriptive, it was not intended to be a list of what might be considered as good teaching

and that there may be perfectly acceptable reasons why a teacher may veer away from any of these criteria. Again for those wishing to have some form of structure for their observations, the concept of a “timelog” was introduced and its use explained [24]. Participants were informed that if they felt more comfortable using global criteria in their critique then this was also perfectly acceptable. Observers were encouraged to remain impartial throughout the observation, maintaining a “fly-on-the-wall” status. Face-to-face post -observation meetings took place as soon as possible following both observations. Discussions between the pair of dental tutors (or observer and the observed) remained confidential.

For those consenting to be involved in the evaluation of the scheme, semi-structured, one-to-one interviews were carried out by the principal investigator. These interviews were conducted in private as soon as was practical following the post-observation discussions. The interviews were digitally recorded using a mobile phone application. Digital audio recordings were transcribed and entered into NVivo 10 (a computer programme facilitating qualitative analysis) to assist in coding of themes and categories.

Results

Eleven tutors took part resulting in 12 observations (the principal investigator joined a pairing in order to make up numbers but did not contribute to the analysed material). This occurred because one of the consenting participants was off work on prolonged sick leave. Ten observations took place in an outreach setting and two were conducted within the Department of Paediatric Dentistry in Glasgow Dental School.

Participants included two consultants in paediatric dentistry, one Senior Community Dental Officer and nine Community Dental Officers, the range of time since graduation was between twenty and five years, the range of time teaching was between nine and one year. No participants objected to their assigned pairing.

All clinics observed were of chair side teaching, staff to student ratios varied from 1:2 to 1:4. Some of the observations also included tutorials which naturally formed part of the session. Session duration varied from 2.5 to 3.5 hours. Interviews were conducted at a time and place suitable to the participant and ranged in duration from 17 to 31 minutes. Initial interview analysis attempted to code the emerging/common themes (see fig. 1)

Interview analysis revealed that participants reflected on their teaching prior to being observed. The majority of participants took the decision not to change anything in their current practice while being observed in the

hope of receiving a more meaningful critique. All participants admitted some trepidation prior to being observed and some actually described this as “anxiety”. A major benefit of the scheme was its ability to reassure participants that their practice was similar to that of their peer.

…”my anxieties started to reduce when I realized that we really do similar things, it was very reassuring.”

“What I did learn is that other people have the same problems when teaching, it’s not specific to me and that’s a good thing, very reassuring.”

Many of them were able to witness new approaches to teaching which they liked and often adopted or adapted for use in their own teaching practice.

…”so what I have really taken from observing her (peer) is a lesson on how to handle the student, when to stand back and let them get on with it and when to intervene. There were tips that I couldn’t wait to incorporate into my teaching.”

Some picked up coping strategies to deal with being overly busy on student clinics. Although the main focus of the scheme was to enhance teaching skills, participants also picked up some valued clinical tips which they were able to utilise in their own student teaching. As a result of being

observed many participants had, previously unrecognised, exemplary aspects of their teaching style acknowledged. Common pitfalls were identified and discussed, such as the tendency to take over or not give the student ownership of the patient's care.

…"It was pointed out that I have a bit of a tendency to take over rather than letting the students be a bit more hands-on."

The scheme also enabled observers to point out to the observed where they had perhaps missed ideal opportunities to emphasise specific learning points. Participants found it relatively simple to separate the teaching style and methods from the dental content, although, in the course of one observation an inaccuracy in clinical knowledge was pointed out.
The majority of participants found the role of observer to have been the most beneficial.

"I preferred observing someone else. When you are busy yourself sometimes you forget to notice things, watching someone else was a real luxury, having time to think about how things were progressing."

All participants found the post observation discussions with their peer to have been helpful, honest and open. All participants reflected on their

experience following involvement in the scheme and discussion with their peer helped to facilitate some of this.

…"just the fact that it (the scheme) makes you think about teaching rather than just going on doing what you do."

Most participants felt relatively comfortable giving and receiving their critique, although one participant felt that they had too many comments to make. During the interview participants were asked to think about other appropriate ways in which their teaching could be improved, and while they did mention attending courses and teaching qualifications, none could identify another method which would be more authentic or accessible as POT. All participants found involvement in the scheme to be an influential educational experience and felt that long term participation in the scheme would enhance their teaching practice and ultimately help standardise teaching practice throughout the Dental School. Participants were pleased that a need for training had been identified and valued the time which was granted for involvement in the scheme.

Discussion

All participants went through a period of reflection prior to being observed; as you would expect, the thought of having their teaching professionally observed made them think about what they currently do and if it could be improved. One participant did change the way they normally teach prior to being observed in order to incorporate some new teaching methods they had observed from their peer the week before.

All participants admitted some trepidation prior to being observed and some actually described this as “anxiety”, but in all cases the apprehension disappeared as they fell into their regular teaching role and in many cases the observer was completely forgotten about as the business of a busy teaching session took hold.

In other POT schemes observations have been carried out by educationalists who are expert in the critique of teaching practice. For this study the employment of an educationalist to carry out all observations was seen as unrealistic and unsustainable. A specialist educationalist peer would also lack an outlook which was more specifically dental in nature. Reassurance that participants’ teaching practice was similar to that of their peers was a major outcome of this study. The reason for this may be even more pertinent among this group as many of them teach in relative isolation in community outreach centre’s. These teachers have between two and four students each in clinics where chair side teaching and occasionally tutorials are the only activities. The majority of the participants had never participated in courses in teaching and learning, such as a

Postgraduate Certificate in Learning and Teaching, and some of them were also relatively new to teaching. Whilst all participants could be described as “keen” teachers, in a small number of cases the choice to become a teacher was not completely without coercion. However, to touch on an earlier comment, none of the teachers were of the opinion that teaching was largely “common sense”, and all felt that input and training was something necessary to improve teaching skills.

In one case inaccurate clinical knowledge was given to students; the knowledge itself was not inaccurate per se but rather a pragmatic alternative which was deemed inappropriate for students to learn and that might have led to a student scoring badly in examinations. This scenario was discussed at a follow up meeting and a clinical update on the subject has been arranged. Without POT this matter may never have been highlighted.

Separating teaching style and methods from dental information was relatively simple for the participants, maintaining a “fly-on-the-wall” status meant that they were unable to fully appreciate the entire clinical picture. Although some did express the view that they would have planned the treatment for a patient differently; as professionals they were all aware that multiple treatment plans may have been appropriate.

Teachers were given a great confidence boost when aspects of their teaching were acknowledged as exemplary. This encouraged further discussion at subsequent meetings where teachers were happy to openly

share the details of such accolades to the wider audience of outreach tutors. This has all added to scholarly discussion and development of teaching practice within the group as a whole.

In this study the majority of participants found the role of observer to have been the most beneficial. They seemed to value the uncommon opportunity to observe a colleague undertaking teaching and clinical practice. As the scheme progresses it is possible that this view may change, especially if teachers start to identify aspects of their teaching which they would like to work on and ask their observer to pay particular thought and attention to. Many appreciated the opportunity to focus solely on teaching methods and style without having to simultaneously interact with students and patients. Participants appreciated the time they were given to do this and how it helped with their own personal reflection on clinical teaching and practice. Many were aware that personal reflection could help to modify and improve teaching but that this was greatly facilitated by input from other sources; POT was a non-judgmental and non-threatening way to receive this input.

Most participants felt relatively comfortable giving and receiving their critique and reported transferring the methods they currently used to facilitate this type of discussion with students. One participant admitted, however, that they would have found it impossible to say anything negative to their peer. In this instance, it may have been down to the inexperience of this particular teacher and the dynamics of the pairing and this emphasises

the importance of considering how “peers” should be selected in any extension of the scheme and indeed who a “peer” is considered to be. Another participant felt that they had too many comments to make so decided just to focus on the three most relevant items rather than bombarding their observee with information. This seems a wise strategy for such circumstances and will be incorporated into future participant guidance information. Due to time pressures faced by the tutors, POT was seen as an effective and authentic way of enhancing teaching skills. Although they did have to set aside time for discussions and to observe their peer this was seen as a good use of time which was fortunately supported by the Associate Medical Director for Greater Glasgow and Clyde Health Board. It is estimated that the time burden for each participant was around 6 hours of which 3 hours was lost clinical time, participants tended to hold pre and post observation discussions during their lunchtimes. Training took up around one hour and had been incorporated into a previously organised study/update day. Obviously this scheme does have a financial burden with the loss of one clinical session per participant the cost of which varies with the grade of the participant. As previously stated the Associate Medical Director was aware of the demands on time/lost clinical activity but the benefits to staff, and ultimately to students, were deemed to be worthy of participation in the scheme.

Conclusions

A peer observation of teaching scheme was successfully set up and administered for paediatric dentistry chairside teachers at Glasgow Dental School. The scheme was well received by all participants who felt it was a very authentic method for effectively engaging them in reflection and development of their teaching practice via observations and scholarly discussion. Identification of items for future training events was also seen as a successful outcome of the scheme. Staff were eager to repeat this process on a yearly basis and were pleased that introduction of this scheme acknowledged their need for ongoing teaching and learning support. Following the success of this pilot scheme the authors plan to implement POT for all clinical chairside teachers in the Dental School.

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Legends

Table 1: Emerging Themes

Reassurance with regard to own teaching ability
Feelings regarding being observed
Feelings about having to critique peers
Reflection on teaching practice
Support for the scheme
Thoughts regarding peer pairings
Opinion with regard to the written information supplied

Standardisation of Teaching

Fig 1.

Discussion points to consider during observations:

- Were the learning goals for the student clearly set out at the start of each patient interaction?
- Do you think the student understood what they were supposed to do? If not, were they given an opportunity to ask prior to sitting down with the patient?
- Did the teacher actively interact with the student or did the student have to ask for assistance every time it was required?
- Did the tutor fully allow the student to communicate with the patient//parent or did the tutor take over?
- Was appropriate feedback given at the end of the session?
- Did the tutor miss giving feedback that could have been helpful to the student?
- Did the tutor try to find something that the student had done well prior to giving constructive criticism of their work/conduct?
- Did the tutor give feedback that was not constructive?
- Did the tutor give the student ample time to explain their actions?
- Did the tutor encourage the student to reflect on both what went well and what did not go so well during the session?
- Did the tutor help the student to identify future learning needs and how these might be met?
- Did the tutor help to test or expand the student's knowledge with appropriate questioning?
- Did the tutor fully expand on concepts for which the student did not know the answer to or direct them to appropriate learning resources?